

IN THE CLAIMS

The following is a listing of the claims in accordance with 37 C.F.R. §1.121.

1. (previously presented) A motor control system for an electric motor, comprising:
 - a bypass switch comprising:
 - a first set of contacts electrically coupled in series with an input of a variable frequency drive;
 - a second set of contacts electrically coupled in series with an output of the variable frequency drive;
 - an operator having a first position and a second position, wherein the first set of contacts and the second set of contact are closed when operator is oriented in the first position and the first set of contacts and the second set of contacts are open when the operator is oriented in the second position;
 - a bypass relay having a relay coil and a third set of contacts, wherein the third set of contacts is electrically coupled in parallel with the first set of contacts and the second set of contacts; and
 - the switch being configured to energize the relay coil and thereby close the third set of contacts when the first and second sets of contacts are open.
2. (canceled).
3. (previously presented) The system as recited in claim 1, wherein the operator is adapted to be selectively manually positioned in each of the first and second positions.
4. (canceled).

5. (previously presented) The system as recited in claim 1, further comprising a fourth contact electrically coupled in series with the relay coil, the fourth contact being adapted to open the third set of contacts when the first and second sets of contacts are closed.

6. (previously presented) The system as recited in claim 5, wherein the manual bypass switch is adapted to open the fourth contact to de-energize the bypass relay and open the third set of contacts before the first set of contacts and the second set of contacts are closed.

7. (original) The system as recited in claim 1, comprising a disconnect adapted to control power to the motor controller from a source, wherein the first set of contacts is electrically coupled in series with the disconnect.

8. (previously presented) The system as recited in claim 1, comprising a terminal adapted to receive a conductor electrically coupled to the motor, wherein the second and third sets of contacts are electrically coupled to the terminal.

9. (original) The system as recited in claim 1, comprising the variable frequency drive.

10. (previously presented) A motor control system, comprising:
a variable frequency drive adapted to produce a variable frequency output to control the speed of a motor, the variable frequency drive comprising:

an input to enable power from an external power source to be coupled to the variable frequency drive; and

an output to enable the variable frequency drive to be coupled to the motor;

and

an electrical system operable to selectively couple the motor to the output of the variable frequency drive and the external power source, the electrical system being adapted to electrically isolate the input and the output of the variable frequency drive from the external power source when the motor is coupled to the external power source;

wherein the electrical system comprises a manual bypass switch and a bypass relay; the bypass relay having at least one set of contacts electrically connected in parallel with the variable frequency drive and electrically connected in series between the external power source and the motor; and wherein the manual bypass switch has a first set of contacts electrically connected in series to the input of the variable frequency drive and a second set of contacts electrically connected in series to the output of the variable frequency drive.

11. (canceled).

12. (canceled).

13. (previously presented) The system as recited in claim 10, wherein the manual bypass switch comprises a double-break switch having an operator, wherein the first and second sets of contacts are closed when the operator is positioned in a first position and open when the operator is positioned in a second position.

14. (canceled).

15. (previously presented) The system as recited in claim 13, wherein the manual bypass switch comprises at least one auxiliary contact electrically connected in series with the bypass relay, the auxiliary contact being a early-break contact.

16. (previously presented) The system as recited in claim 10, wherein the variable frequency drive is located in a first compartment of an enclosure and the manual bypass switch and bypass relay is located within a second compartment of the enclosure.

17. (original) The system as recited in claim 10, wherein the external power source is an electrical bus of a motor control center.

18. (original) The system as recited in claim 10, wherein the electrical system is operable to provide a control signal to the variable frequency drive to establish a desired variable frequency output.

19. (original) The system as recited in claim 18, wherein the electrical system is coupled to an external communication system to enable the desired variable frequency output to be established remotely via the external communication system.

20. (currently amended) A system, comprising:
a motor drive operable to drive an electric motor;
a bypass relay electrically in parallel with the motor drive; and
a motor control system comprising a manual bypass switch selectively operable to couple a power source to the motor drive and to the motor, wherein the manual bypass switch is operable to electrically isolate the motor drive from the power source and from the motor, and to close the bypass relay to couple the motor directly to the power source.

21. (previously presented) The recited in claim 20, wherein the motor drive comprises a variable frequency drive.

22. (canceled).

23. (original) The system as recited in claim 20, wherein the manual bypass switch is a double-break switch.

24. (canceled).

25. (canceled).

26. (currently amended) The system as recited in claim 20, further comprising a third set of contacts electrically coupled in series with a the bypass relay for opening the bypass relay before the motor drive is recoupled between the power source and the motor.

27. (canceled).

28. (previously presented) A method of operating a motor controller, comprising:

orienting a manually-operated switch in a first position to electrically couple a power source to a variable frequency drive and electrically couple the variable frequency drive to a motor; and

positioning the manually-operated switch in a second position to uncouple the variable frequency drive from the power source and the motor and to close a relay to couple the power source directly to the motor.

29. (canceled).

30. (previously presented) The method as recited in claim 28, comprising re-orienting the switch in the first position, wherein the relay is opened before the power source is electrically coupled to the variable frequency drive and the variable frequency drive is electrically coupled to the motor.

31. (previously presented) A motor control system, comprising:
a variable frequency drive adapted to produce a variable frequency output to control the speed of a motor;

a bypass switch having first and second sets of contacts for electrically coupling the variable frequency drive to the external power source and to the motor, and a set of auxiliary contacts;

a bypass relay having a coil and a set of bypass contacts, the coil being energized by the auxiliary contacts to electrically coupled the motor to the external power source such that the bypass contacts are electrically parallel to the variable frequency drive.

32. (previously presented) The motor control system of claim 31, wherein the bypass relay coil is in series with the auxiliary set of contacts of the bypass switch.

33. (previously presented) The motor control system of 31, wherein the bypass switch has a first position and a second position;

the first position enabling the variable frequency drive; and

the second position isolating the variable frequency drive.

34. (previously presented) The motor control system of claim 31, wherein the first and second set of contacts open before the auxiliary set of contacts can cause the closure of the bypass relay.

35. (previously presented) The motor control system of claim 31, comprising a control relay coupled to the bypass relay coil for enabling the bypass relay.

36. (previously presented) The motor control system of claim 35, wherein contacts of the control relay are coupled in series with the bypass relay coil and a coil of the control relay is energized upon starting the motor.

37. (previously presented) A system comprising:

a motor drive operable to drive an electric motor;

a bypass relay electrically in parallel with the motor drive;

a motor control system comprising a manual bypass switch selectively operable to couple the motor drive between a power source and the electric motor, wherein the manual bypass switch is operable to electrically isolate the motor drive from the power source and from the motor, and to close the bypass relay to couple the motor directly to the power source; and

a set of contacts electrically coupled in series with the bypass relay for opening the relay before the motor drive is recoupled between the power source and the motor.